

ABSTRACT OF THE DISCLOSURE

A method of etching a mask layer as a protecting layer for metal contact windows uses a victim layer with slopes to avoid undercutting. First, a mask layer is formed on a semiconductor substrate. Next, a photoresist with patterns is formed on the surface of the mask layer. Next, a victim layer is formed on the surface of the photoresist according to the photoresist topography, such that a plurality of slopes is formed on the sidewalls of the photoresist. The photoresist and the victim layer with slopes are used as the etching mask to etch the mask layer to form patterns.